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AMENDMENTS TO THE CLAIMS:

1.   (Currently Amended) A computer implemented method for an auction comprising the steps of:

[[(1)]] establishing an auction system; [[and]]

[[(2)]] enabling the auction system so that it is responsive to receiving at least one constraint[[s]]specified by or on behalf of a participant in the auction, wherein the constraint characterizes combinations of items desired by the participant within the auction system; and determining a winner in the auction, based on the constraint specified by the participant.

2.   (Currently Amended) A method according to claim 1, wherein step 1 comprises establishing an the auction system is selected from [[the]] a group consisting of an open cry auction, an ascending bid auction, and a descending bid auction.

3.   (Currently Amended) A method according to claim 1, wherein step 2 comprises enabling the auction system so that it is responsive to the constraints [[that]] characterize combinations of bids from the participant for the desired items within the auction system.

4.   (Currently Amended) A method according to claim 1, wherein step 2 comprises further comprising enabling the auction system so that it is responsive to a budget constraint.

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5.   (Currently Amended) A method according to claim 4, wherein ~~step 2 comprises enabling the auction system so that it is responsive to a~~ the budget constraint is specified by ~~or on behalf of a bidder~~ the participant.

6.   (Currently Amended) A method according to claim 1, ~~wherein step 2 comprises~~ further comprising enabling the auction system so that it is responsive to constraints selected from the group consisting of a maximum quantity constraint, a minimum quantity constraint, a precedence constraint, and a general linear constraint.

7.   (Currently Amended) A method according to claim 1, ~~wherein step 2 comprises~~ further comprising enabling the auction system so that it is responsive to seller constraints.

8.   (Currently Amended) A method according to claim 7, wherein ~~step 2 comprises enabling the auction system so that~~ the seller constraints specify a minimum value for a combination of items.

9.   (Currently Amended) A method according to claim 7, wherein ~~step 2 comprises enabling the auction system so that~~ the seller constraints specify a minimum value for a combination of a minimum number of items to be sold.

10.   (Currently Amended) A method according to claim 7, wherein ~~step 2 comprises enabling the auction system so that~~ the seller constraints specify a minimum value for a combination of items correlated to a precedence relationship.

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11.   (Currently Amended) A method according to claim 1, further comprising ~~a step 3 of determining winners from among the participants in the auction~~ formulating a winner determination problem with the constraint specified by the participant as an integer problem.

12.   (Currently Amended) A method according to claim 11, further comprising ~~a step 4 of~~ applying [[an]] the integer program for determining [[said]] at least one winner[[s]].

13.   (Currently Amended) A program medium executable in a computer system for facilitating an auction, the program medium comprising machine-readable instructions to cause the computer system to execute steps for:

        [[(1)]] establishing an auction system; [[and]]

        [[(2)]] enabling the auction system so that it is responsive to constraints specified by ~~or on behalf of~~ a participant in the auction, wherein the constraints characterize combinations of items desired by the participant within the auction system; and

                generating a proposal, based on the constraints specified by the participant, using a column generation formulation.

14.   (New) A computer implemented method for facilitating an auction comprising:

        receiving constraints specified by a participant in the auction, wherein the constraints characterize combinations of items desired by the participant within an auction system; and

        formulating a winner determination problem, with the constraints specified by the participant, as an integer problem.

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15.   (New) A method according to claim 14, further comprising:

determining winners from among participants in the auction by applying the integer

program.

16.   (New) A method according to claim 14, further comprising:

specifying combinatorial bids by interpreting the constraints.

17.   (New) A method according to claim 14, further comprising:

generating a proposal based on the constraints specified by the participant using a

column generation formulation.

18.   (New) A method according to claim 17, wherein the proposal comprises a set of bids

from the participant that satisfies the constraints specified by the participant.

19.   (New) A method according to claim 14, wherein the constraints are represented by

linear relationships between indicator variables on bids from the participant.